CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2015-XXXX

WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF PORTOLA
PORTOLA CLASS III MUNICIPAL SOLID WASTE LANDFILL
POST-CLOSURE MAINTENANCE AND CORRECTIVE ACTION
PLUMAS COUNTY

TENTATIVE

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Central Valley Water Board) finds that:

1. The City of Portola (hereinafter Discharger) owns and operates the Portola Class III Municipal Solid Waste Landfill (facility) about 1.5 miles northeast of the City of Portola and north of Highway 70 in the northeaster quadrant of Section, T23N, R14E, MDB&M, as shown in Attachment A, which is incorporated herein and made part of this Order by reference. The facility is a municipal solid waste (MSW) landfill regulated under authority given in Water Code section 13000 et seq.; California Code of Regulations, title 27 ("Title 27"), section 20005 et seq.; and 40 Code of Federal Regulations section 258 (a.k.a, "Subtitle D") in accordance with State Water Resources Control Board (State Water Board) Resolution 93-62.

2. The 48 acre facility consists of one existing unlined waste management unit (Unit) covering approximately eight acres of the site, as shown in Attachment B, which is incorporated herein and made part of this Order. A scrap metal storage area, and green waste storage area are located along the eastern portion of the facility. The Discharger proposes to continue operation of these recycling facilities after closure of the Unit. The facility is comprised of Assessor's Parcel Numbers (APN) 025-10-023 and 025-10-026. Solid waste operations have been conducted wholly within the 22.46-acre APN 025-10-026.

3. In May 2014, the Discharger submitted a Final Closure and Post-Closure Maintenance Plan (FCPCMP) for the landfill, which serves as an amendment to the report of waste discharge. The information in the FCPCMP has been used in revising these waste discharge requirements. The FCPCMP contains the applicable information required in Title 27. The FCPCMP and supporting documents contain information related to this revision of the WDRs.

4. On 17 March 2005, the Central Valley Water Board issued Order No. R5-2005-0048 in which the landfill waste management unit at the facility was classified as a Class III units for the discharge of municipal solid waste. This Order continues to classify, the landfill unit as a Class III unit in accordance with Title 27.

5. The existing and future landfill units authorized by this Order are described as follows:

Unit	Area	Liner/LCRS[1] Components[2]	Unit Classification & Status
Unit I	8 acres	unlined	Class III, closed

[1] LCRS – Leachate collection and removal system

[2] All liner systems are composite liner systems unless otherwise noted

6. On-site facilities at the Portola Class III Municipal Solid Waste Landfill include: a passive landfill gas venting system, a scrap metal storage area, and green waste storage area. The Discharger proposes to continue operation of these recycling facilities after closure of the Unit.

7. On 9 October 1991, the United States Environmental Protection Agency (USEPA) promulgated federal MSW regulations under the Resource Conservation and Recovery Act (RCRA), Subtitle D. These regulations are under 40 Code of Federal Regulations section 258, and are hereafter referred to as either "Subtitle D" in reference to the RCRA federal law that required the regulations or "40 C.F.R. section 258.XX". These regulations apply to all California Class II and Class III landfills that accept MSW. State Water Board Resolution 93-62 requires the Central Valley Water Board to implement in WDRs for MSW landfills, the applicable provisions of the federal MSW regulations that are necessary to protect water quality, and in particular the containment provisions and the provisions that are either more stringent or that do not exist in Title 27.

8. This Order implements the applicable regulations for discharges of solid waste to land through Prohibitions, Specifications, Provisions, and monitoring and reporting requirements. Prohibitions, Specifications, and Provisions are listed in Sections A through H of these WDRs below, and in the Standard Provisions and Reporting Requirements (SPRRs) dated January 2012 which are part of this Order. Monitoring and reporting requirements are included in the Monitoring and Reporting Program (MRP) No. R5-2015-XXXX and in the SPRRs. In general, requirements that are either in regulation or otherwise apply to all MSW landfills are considered to be "standard" and are therefore in the SPRRs. Any site-specific changes to a requirement in the SPRRs are included in the applicable section (A through H) of these WDRs, and the requirement in the WDRs supersedes the requirement in the SPRRs.

9. Title 27 contains regulatory standards for discharges of solid waste promulgated by the State Water Board and the California Department of Resources Recovery and Recycling (CalRecycle). In certain instances, this Order cites CalRecycle regulatory sections. Title 27, section 20012 allows the Central Valley Water Board to cite CalRecycle regulations from Title 27 where necessary to protect water quality provided it does not duplicate or conflict with actions taken by the Local Enforcement Agency in charge of implementing CalRecycle's regulations.

SITE DESCRIPTION

10. The Portola Class III Municipal Solid Waste Landfill is approximately 1.5 miles northeast of the City of Portola, one quarter-mile north of Highway 70 and one half-mile north of the Feather River.

11. The landfill is located within the Basin and Range physiographic province, an area characterized by uplifted and tilted mountain ranges separated by broad elongated basins. Bedrock in the vicinity of the landfill has been mapped as predominantly Mesozoic age quartz diorite. This quartz diorite is the predominant geologic unit beneath the site. The quartz diorite is generally very deeply weathered at the surface and grades to a silty sand. Where exposed, the quartz diorite is highly fractured. A large majority of the joints, especially at depth, are filled with clay.

12. The average hydraulic conductivity of native soils beneath the facility as measured in monitoring wells MW-2 and MW-3 during the 1990 SWAT investigation is approximately 2.1 x 10-4 cm/sec.

13. Review of Fault Activity Maps and publications prepared by the California Department of Conservation, Division of Mines and Geology, finds that there are no active faults in Plumas County. The nearest active fault to the site is the Honey Lake Fault, located approximately 23 miles northeast of the landfill. The maximum moment magnitude earthquake on the Honey Lake Fault is 6.9. The Mohawk Valley Fault, located approximately 10 miles southwest of the site, is designated as a potentially active fault. According to modeling by Cao, et. al. (2003), the maximum moment magnitude for northeastern California (from earthquakes that cannot be assigned to a particular fault) is 7.3. According to the U.S. Geological Survey Earthquake Hazards Program, the probabilistic ground motion value for the site vicinity is 0.24 g.

14. Property that surrounds the landfill is zoned “AP”, Agriculture Preserve, and is designated as Agricultural Preserve in the Plumas County General Plan. A rural residential neighborhood, some of which utilize individual domestic water supplies, exists within 1,500 feet south and southwest of the landfill.

15. The facility receives an average of 23.90 inches of precipitation per year on a 10-year return period as measured at the Portola Station. The mean pan evaporation is approximately 45 inches per year.

16. The 100-year, 24-hour precipitation event is estimated to be 4.32 inches, based on Department of Water Resources’ Bulletin 195 entitled Rainfall Analysis for Drainage Design Volume II, dated October 1976.

17. The waste management facility is not within a 100-year flood plain.

18. The Discharger has identified 15 domestic groundwater supply wells within 2,000 feet of the landfill. The properties where these wells are located are generally south and southwest of the facility.

19. Two storm water sedimentation basins are located south and west of the landfill as shown on Attachment B. The basin detains storm water for sedimentation control during the rainy season and is normally dry during the summer months. The sedimentation basin discharges to an unnamed drainage which eventually drains to the Feather River. The southern sedimentation basin has never been observed to discharge.

SURFACE WATER AND GROUNDWATER CONDITIONS

20. The *Water Quality Control Plan for Sacramento and San Joaquin River Basins, Fourth Edition* (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin.

21. Surface water drainage from the site is to an unnamed drainage, a tributary of the Feather River.

22. The designated beneficial uses of the Feather River, as specified in the Basin Plan, are municipal and domestic water supply, agricultural irrigation and stock watering, power generation, contact and non-contact water recreation, warm and cold freshwater habitat, cold water spawning habitat, and wildlife habitat.

23. Shallow groundwater flow beneath and surrounding the landfill occurs in the highly weathered quartz diorite. Groundwater flow in the shallow zone is likely to be controlled by primary porosity due to the granular nature of the weathered rock. It is believed that although flow characteristics are controlled by primary porosity, flow may be enhanced in areas of highly faulted, fractured, or jointed rock due to a higher degree of weathering along these features. Flow direction in the shallow zone is largely controlled by topography, and generally parallels the slope of the landscape with a flow direction of northeast to southwest. However, localized groundwater flow in the shallow zone will also be controlled by irregularities in the surface of the unweathered bedrock. Because topography is greatly influenced by structural features such as faults, fractures, and joints, these features are also likely to play a role in groundwater flow direction in the shallow zone. The average groundwater gradient is approximately 0.375 feet per foot upgradient of the Unit, 0.08 feet per foot directly below the refuse, and 0.176 feet per foot downgradient of the landfill as determined using historical monitoring data.

24. At depth, the weathered bedrock grades into competent (fresh) bedrock. Groundwater flow characteristics in the competent bedrock appear to be controlled by the predominance of faults and their associated secondary fracture and fault patterns. Groundwater occurrence in the deeper bedrock is likely controlled by fracture pervasiveness, interconnectedness, and orientation. Recharge to the deeper water-

bearing zone probably occurs primarily higher up in the watershed, although some recharge from the shallow weathered water-bearing zone may also occur.

25. An intermittent surface spring has been identified near a fault structure at the landfill northeast of the waste footprint. Additional intermittent surface springs may be located south and topographically down gradient of the landfill and along Meadow Way below the landfill.

26. First encountered groundwater is generally about 13 to 38 feet below the native ground surface. Groundwater elevations appear to range from 5,012 feet MSL to 5,184 feet MSL.

27. Monitoring data indicates background groundwater quality has an electrical conductivity (EC) ranging between 70 and 100 micromhos/cm, with total dissolved solids (TDS) ranging between 78 and 120 mg/l.

28. The designated beneficial uses of the groundwater, as specified in the Basin Plan, are domestic and municipal supply, agricultural supply, industrial service supply, and industrial process supply.

GROUNDWATER AND UNSATURATED ZONE MONITORING

29. Nine groundwater wells have been installed at the facility for detection monitoring and to assess the vertical and horizontal extent of groundwater impacts. Wells MW-1, MW-2, and MW-3 were installed in late 1987. Well MW-4 was installed in May 1995. Wells MW-5, MW-6, MW-7, MW-8S (shallow), and MW-8D (deep) were installed in July 2001. Well MW-1 is located approximately 450 feet east of the upper portion of the Unit and provides background water quality data. MW-1 is installed 50.5 feet below ground surface (bgs) and is screened between 30.5 and 50.5 feet bgs. Point of compliance wells MW-2 and MW-3 are located just south and topographically downgradient of the Unit. MW-2 is installed 57.5 feet bgs and MW-3 is installed 48 feet bgs. MW-2 is screened between 38 and 57.5 feet bgs and MW-3 is screened between 14 and 48 feet bgs. Well MW-4 is situated near the southwestern edge of the Unit and is considered a point of compliance well. MW-4 is installed 47 feet bgs with a screen interval of 27 to 47 feet bgs. Well MW-5 is located just west of the landfill unit and is somewhat topographically crossgradient of the Unit. MW-5 is installed 37 feet bgs with a screen interval of 17 to 37 feet bgs. Well MW-6 is the furthest downgradient well and is located approximately 400 feet south of the landfill unit. MW-6 is installed 24.5 feet bgs with a screen interval between 14.5 and 24.5 feet bgs. Well MW-7 is located along the south property line southeast and crossgradient of the Unit. MW-7 is installed 45 feet bgs with a screen interval between 25 and 45 feet bgs. Point of compliance wells MW-8S and MW-8D are clustered near well MW-3, the most impacted well, along the southern landfill property boundary. MW-8S is installed 25 feet bgs with a screen interval between 15 and 25 feet bgs and MW-8D is installed 49 feet bgs with a screen interval between 44 and 49 feet bgs. This cluster of wells was installed to evaluate vertical gradients and the magnitude of groundwater impacts downgradient of the Unit.

30. The Unit is unlined; therefore, no vadose zone monitoring occurs. Any springs subsequently identified topographically downgradient of the Unit will be incorporated into the evaluation monitoring program for the site.

31. The Discharger has completed a corrective action program due to groundwater impacts associated with a release of waste from the facility. Closure was the preferred remedial alternative chosen by the Discharger. In October 2014, the Discharger completed construction of the final cover for the landfill in accordance with the May 2014 *Revised Final Closure Plan and Post Closure Maintenance Plan*. The existing monitoring network meets the requirements contained in Title 27 for a corrective action and evaluation monitoring program. Additional wells may be installed to assess vertical and horizontal groundwater impacts and to evaluate the efficacy of the corrective action program. Any additional wells installed to assess groundwater impacts will be incorporated into the corrective action and evaluation monitoring program.

32. Volatile organic compounds (VOCs) are often detected in a release from a MSW landfill and are often associated with releases of landfill gas rather than leachate. Since volatile organic compounds are not naturally occurring and thus have no background value, they are not amenable to the statistical analysis procedures contained in Title 27 for the determination of a release of wastes from a landfill unit. Title 27, sections 20415(e)(8) and (9) allows the use of a non-statistical evaluation of monitoring data that will provide the best assurance of the earliest possible detection of a release from a landfill unit in accordance with Title 27, sections 20415(b)(1)(B)2.-4. However, Title 27 does not specify a specific method for non-statistical evaluation of monitoring data.

33. The Central Valley Water Board may specify a non-statistical data analysis method pursuant to Title 27, section 20080(a)(1). Water Code section 13360(a)(1) allows the Central Valley Water Board to specify requirements to protect groundwater or surface waters from leakage from a solid waste site, which includes a method to provide the best assurance of determining the earliest possible detection of a release.

34. In order to provide the best assurance of the earliest possible detection of a release of non-naturally occurring waste constituents from a landfill unit, the SPRRs specify a non-statistical method for the evaluation of monitoring data for non-naturally occurring compounds. The specified non-statistical method for evaluation of monitoring data provides two criteria (or triggers) for making the determination that there has been a release of non-naturally occurring waste constituents from a landfill unit. The presence of two non-naturally occurring waste constituents above their respective method detection limit (MDL), or one non-naturally occurring waste constituent detected above its practical quantitation limit (PQL) [a.k.a, laboratory reporting limit (RL)], indicates that a release of waste from a Unit has occurred. Following an indication of a release, verification testing must be conducted to determine whether there has been a release from the landfill unit or the detection was a false detection. The detection of two non-naturally occurring waste constituents above the MDL as a trigger is appropriate due to the higher risk of false-positive analytical results and the corresponding increase in sampling and analytical

expenses from the use of one non-naturally occurring waste constituent above its MDL as a trigger.

35. For a naturally occurring constituent of concern, the Title 27 requires concentration limits for each constituent of concern be determined as follows:

    a. By calculation in accordance with a statistical method pursuant to Title 27, section 20415(e)(8); or

    b. By an alternate statistical method meeting the requirements of Title 27, section 20415(e)(8)(E).

36. The Discharger submitted a 14 March 2006 Water Quality Protection Standard (WQPS) report proposing statistical data analysis methods to calculate concentration limits for each monitored constituent in accordance with Title 27. The WQPS report proposed to use interwell data analysis to calculate tolerance limits for the monitored constituents. The WQPS and approved data evaluation methods are included in MRP No. R5-2015-XXXX.

GROUNDWATER DEGRADATION AND CORRECTIVE ACTION

37. Groundwater quality beneath and downgradient of the facility has been impacted by landfill operations. Specifically, elevated levels of alkalinity, chloride, sulfate, and total dissolved solids have been detected in down and cross gradient wells MW-2, MW-3, MW-4, MW-6, and MW-8 (shallow and deep).

38. Volatile organic compounds (VOC) have been detected at or above method detection limits in site monitoring wells MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8s and MW-8d. Constituents detected include Benzene, Chlorobenzene, Chloroethane, p-Isopropyltoluene, Chloromethane, 1,4-Dichlorobenzene, 1,1-Dichloroethane, cis-1,2-Dichloroethene, Dichlorodifluoromethane, Methyl-tert-Butyl Ether (MtBE), and Methylene Chloride. Groundwater monitoring results for VOCs detected in site monitoring wells may be summarized as follows:

VOC	Average Concentration, ug/L		
	Pre-2005[1]	2010[2]	2014[2]
Benzene	0.51	<0.5[3]	<0.5[3]
Chlorobenzene	0.43	<0.5[3]	<0.5[3]
Chloroethane	1.6	<0.5[3]	<0.5[3]
p-Isopropyltoluene	<0.5[3]	3.05	1.68
Chloromethane	0.81	<0.5[3]	<0.5[3]
1,4-Dichlorobenzene	0.92	0.52	<0.5[3]
1,1-Dichloroethane	0.82	<0.5[3]	<0.5[3]
Cis-1,2-Dichloroethene	3.54	1.28	0.37[4]
Dichlorodifluoromethane	1.10	<0.5[3]	<0.5[3]
Methyl-Tert-Butyl Ether	3.58	0.49[4]	<0.5[3]
Methylene Chloride	<0.5[3]	0.27	<0.5[3]
Toluene	<0.5[3]	0.89	0.14[4]

1. Composite annual average for all wells with detections.
2. Four-quarter average using non-detects at PQL.
3. Constituent not detected.
4. Constituent detected at concentration less than PQL but greater than MDL.

39. Groundwater impacts were evaluated and confirmed in the September 2001 Groundwater Investigation Report, City of Portola Sanitary Landfill. In October 2001, the City of Portola submitted *Engineering Alternatives for Corrective Action - Portola Sanitary Landfill*, which recommended landfill closure as the preferred corrective action. The landfill halted disposal of municipal solid waste at the landfill on 1 November 2002. In 2005 the Discharger completed partial-final closure of the landfill by installing a temporary 30 mil HDPE cover over the landfill unit. In October 2014 the Discharger completed final closure of the landfill by installing an approved permanent LLDPE cover over the landfill unit.

40. Historical monitoring data for the site generally indicates declining concentrations of VOCs coincident with halting disposal in 2002, installation of the temporary cover in 2005 and completion of the final cover in 2014. Since 2012, the only VOCs detected in groundwater at the site are cis-1,2-dichloroethane, isopropyltoluene, toluene and methyl-tert-butyl ether, at trace to non-detect concentrations.

41. Three individual domestic water supply wells, on properties located within 1,500 feet southwest of the landfill, are monitored in accordance with Order No. R5-2005-0048. These wells, owned by Mack (APN 125-080-018), Prinvale (APN 125-080-024), and Ostreich (APN 125-80-019) have, or have had, regular detections of volatile organic compounds. The Mack well has contained MtBE at a maximum concentration of 3.9 ug/L,

the Prinvale well has contained chloroform, cis-1,2-Dichloroethene and Dichlorodifluoromethane at maximum concentration of 0.65, 0.37 and 0.25 ug/L, respectively, and the Ostreich well has contained Dichlorodifluoromethane at a maximum concentration of 0.33 ug/L.

42. None of the VOC detections in the Mack, Prinvale and Ostreich wells have exceeded Primary or Secondary Maximum Contaminant Levels for drinking water quality. In addition, monitoring data for the off-site domestic wells generally indicates declining concentrations of VOCs coincident with halting disposal in 2002, installation of the temporary cover in 2005 and completion of the final cover in 2014.

LANDFILL CLOSURE

43. Title 27, section 21090 provides the minimum prescriptive final cover components for landfills consisting of, in ascending order, the following layers:

    a. Two-foot soil foundation layer.
    b. One-foot soil low flow-hydraulic conductivity layer, less than $1x10^{-6}$ cm/s or equal to the hydraulic conductivity of any bottom liner system.
    c. Geomembrane layer (this layer is required for composite-lined landfills for equivalency to bottom liner).
    d. One-foot soil erosion resistant/vegetative layer.

44. Title 27 allows engineered alternative final covers provided the alternative design will provide a correspondingly low flow-through rate throughout the post-closure maintenance period.

45. The Discharger submitted a 15 May 2014 *Revised Final Closure and Postclosure Maintenance Plan* for closure and post-closure maintenance of the landfill unit at the facility. In October 2014 construction of the final cover was completed. The engineered alternative final cover system consists of the following, in ascending order: a two-foot thick soil foundation layer, a 50 mil structured, linear low-density polyethylene geomembrane installed spiked side down, a drainage layer consisting of the studded (upward) side of the structured geomembrane, and a geosynthetic erosion-resistant layer consisting of a woven geotextile and UV resistant blades of artificial turf ballasted with sand infill.

46. The Discharger's 15 May 2014 *Revised Final Closure and Postclosure Maintenance Plan* includes an analysis of the proposed engineered alternative final cover.

47. The Discharger has demonstrated that the engineered alternative final cover meets the performance goals of Title 27 and that it is equivalent to the prescriptive standard.

48. Side slopes for the closed landfill are sloped at 3H:1V as required by Title 27.

49. The Discharger performed a slope stability analysis for the proposed final cover. The Discharger's static and dynamic stability analysis demonstrates that the side slopes of the final cover will be stable in accordance with the requirements of Title 27.

50. Pursuant to Title 27, section 21090(e)(1), this Order requires a survey of the final cover following closure activities for later comparison with iso-settlement surveys required to be conducted every five years.

LANDFILL POST-CLOSURE MAINTENANCE

51. The Discharger submitted a 15 May 2014 *Revised Final Closure and Postclosure Maintenance Plan* for closure and post-closure maintenance of the Unit. The plan includes inspection, maintenance, and monitoring of the landfill during the post-closure maintenance period, and includes a post-closure maintenance cost estimate for the entire facility. Inspection and maintenance will include the condition of the final cover, drainage features, groundwater monitoring wells, access roads, landfill gas system, and site security. The plan will be implemented for a minimum period of 30 years or until the waste no longer poses a threat to environmental quality, whichever is greater.

52. Once every five years during the post-closure maintenance period, aerial photographic maps of the closed landfill area will be made to identify and evaluate landfill settlement. Iso-settlement maps will be prepared to determine the amount of differential settlement occurring over the previous five years. Pursuant to Title 27, section 21090(e)(2), this Order requires iso-settlement maps to be prepared and submitted every five years.

53. The completed final cover will be periodically tested for damage or defects by monitoring surface emissions pursuant to California Code of Regulations, title 17, section 95471(c) and Title 27, section 21090(a)(4)(A). Defects will be repaired and tested for adequacy based on the closure CQA Plan.

FINANCIAL ASSURANCES

54. Title 27, sections 21840 and 22211 requires a cost estimate for landfill post-closure maintenance. The Discharger's 15 May 2014 *Revised Final Closure and Post Closure Maintenance Plan* includes a cost estimate for landfill post-closure maintenance. The amount of the cost estimate for post-closure maintenance in 2014 dollars is $1.20 million. This Order requires that the Discharger maintain financial assurance with CalRecycle in at least the amount of the post-closure maintenance cost estimate adjusted annually for inflation. On October 22, 2003, the city of Portal adopted Resolution No. 1791, which established a Pledge of Revenue financial mechanism for post-closure maintenance and monitoring of Portola Landfill.

55. Title 27, section 22100(b) requires owners and operators of disposal facilities that are required to be permitted as solid waste landfills to provide cost estimates for initiating and completing corrective action for known or reasonably foreseeable releases of waste. Title

27, section 22101 requires submittal of a Water Release Corrective Action Estimate and a Non-Water Release Corrective Action Cost Estimate. The Water Release Corrective Action Estimate is for scenarios where there is statistically significant evidence of a release of waste to ground or surface water when comparing point-of-compliance analyte concentrations to background concentrations. The Non-Water Release Corrective Action Cost Estimate is for complete replacement of the landfill final cover system, however a site-specific corrective action plan pursuant to Title 27, section 22101(b)(2) may be provided in lieu of the final cover replacement cost estimate. Title 27, section 22221 requires establishment of financial assurances in the amount of an approved Water Release Corrective Action Estimate or an approved Non-Water Release Corrective Action Cost Estimate, whichever is greater.

56. The Discharger submitted a 23 February 2015 *Non-Water Release Corrective Action Cost Estimate*, in 2014 dollars, for the amount of $1.52 million dollars for corrective action of all known or reasonably foreseeable releases. This corrective action cost estimate is also considered to be the Water Release Corrective Action estimate, as the Corrective Action Plan currently being implemented by the Discharger consisted of installation of a final cover system with monitored natural attenuation of groundwater pollution. This Order requires that the Discharger maintain financial assurance with CalRecycle in at least the amount of the cost estimate adjusted annually for inflation. On October 22, 2003, the city of Portal adopted Resolution No. 1791, which established a Pledge of Revenue financial mechanism for corrective action costs at Portola Landfill.

CEQA AND OTHER CONSIDERATIONS

57. The action to revise waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA), Public Resource Code section 21000, et seq., and the CEQA guidelines, in accordance with Title 14, section 15301.

58. This order implements:

    a. *The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition*;

    b. The prescriptive standards and performance goals of California Code of Regulations, title 27, section 20005 et seq., effective 18 July 1997, and subsequent revisions;

    c. State Water Board Resolution 93-62, *Policy for Regulation of Discharges of Municipal Solid Waste*, adopted 17 June 1993, and revised on 21 July 2005.

    d. The applicable provisions of Title 40 C.F.R. section 258 “Subtitle D” federal regulations as required by State Water Board Resolution 93-62.

59. Based on the threat and complexity of the discharge, the facility is determined to be classified 2-B as defined below:

a. Category 2 threat to water quality, defined as, “Those discharges of waste that could impair the designated beneficial uses of the receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance.”

b. Category B complexity, defined as, “Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class 2 or Class 3 waste management units.”

60. Water Code section 13267(b) provides that: "In conducting an investigation specified in subdivision (a), the Regional Board may require that any person who has discharged, discharges, or is suspected of having discharge or discharging, or who proposed to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who had discharged, discharges, or is suspected of having discharged or discharging, or who proposed to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

61. The technical reports required by this Order and the attached "Monitoring and Reporting Program No. R5-2015-XXXX" are necessary to assure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.

PROCEDURAL REQUIREMENTS

62. All local agencies with jurisdiction to regulate land use, solid waste disposal, air pollution, and to protect public health have approved the use of this site for the discharges of waste to land stated herein.

63. The Central Valley Water Board notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

64. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

65. Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date that this Order becomes final, except that if the thirtieth day following the date that this Order becomes final falls on a Saturday, Sunday, or state holiday, the petition must be received by the

State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

IT IS HEREBY ORDERED, pursuant to California Water Code sections 13263 and 13267, that Order No. R5-2005-0048 is rescinded except for purposes of enforcement, and that the City of Portola, its agents, successors, and assigns, in order to meet the provisions of Division 7 of the California Water Code and the regulations adopted thereunder, shall comply with the following:

A. PROHIBITIONS

1. The discharge of any additional waste to the Unit is prohibited.

2. The Discharger shall comply with all Standard Prohibitions listed in Section C of the Standard Provisions and Reporting Requirements (SPRRs) dated January 2012 which are attached hereto and made part of this Order by reference.

B. DISCHARGE SPECIFICATIONS

1. The Discharger shall comply with all Standard Discharge Specifications listed in Section D of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

C. FACILITY SPECIFICATIONS

1. The Discharger shall comply with all Standard Facility Specifications listed in Section E of the SPRRs dated January 2012 which are part of this Order.

D. CLOSURE AND POST-CLOSURE MAINTENANCE SPECIFICATIONS

1. The Discharger shall comply with all Standard Closure and Post-Closure Specifications listed in Section G and all Standard Construction Specifications that are applicable to closure in Section F of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

E. FINANCIAL ASSURANCE SPECIFICATIONS

1. The Discharger shall obtain and maintain assurances of financial responsibility with CalRecycle for closure and post-closure maintenance for the landfill in at least the amount described in Finding 54, adjusted for inflation annually. A report regarding financial assurances for post-closure maintenance shall be submitted to the Central

Valley Water Board by **1 June of each year**. This may be the same report that is submitted to CalRecycle for this purpose. If CalRecycle determines that either the amount of coverage or the mechanism is inadequate, then within 90 days of notification, the Discharger shall submit an acceptable mechanism to CalRecycle and the Central Valley Water Board for at least the amount of the approved cost estimate.

2. The Discharger shall obtain and maintain assurances of financial responsibility with CalRecycle for initiating and completing corrective action for all known or reasonably foreseeable releases from the landfill in at least the amount of the annual inflation-adjusted cost estimate described in Finding 55. A report regarding financial assurances for corrective action shall be submitted to the Central Valley Water Board by **1 June of each year**. This may be the same report that is submitted to CalRecycle for this purpose. If CalRecycle determines that either the amount of coverage or the mechanism is inadequate, then within 90 days of notification, the Discharger shall submit an acceptable mechanism to CalRecycle and the Central Valley Water Board for at least the amount of the approved cost estimate.

3. The Discharger shall comply with all Standard Financial Assurance Specifications listed in Section H of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

F. MONITORING SPECIFICATIONS

1. The Discharger shall comply with the detection monitoring program provisions of Title 27 for groundwater, surface water, and the unsaturated zone, and in accordance with Monitoring and Reporting Program (MRP) No. R5-2015-XXXX, and the Standard Monitoring Specifications listed in Section I of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

2. The Discharger shall, for any landfill unit in a corrective action monitoring program, comply with the corrective action monitoring program provisions of Title 27, MRP No. R5-2015-XXXX, and the Standard Monitoring Specifications listed in Section I of SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

3. The Discharger shall comply with the Water Quality Protection Standard as specified in this Order, MRP No. R5-2015-XXXX, and the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

4. The concentrations of the constituents of concern in waters passing the Point of Compliance (defined pursuant to Title 27, section 20164 as a vertical surface located at the hydraulically downgradient limit of the landfill unit that extends through the uppermost aquifer underlying the unit) shall not exceed the concentration limits established pursuant to MRP No. R5-2015-XXXX.

5. For each monitoring event, the Discharger shall determine whether the landfill is in compliance with the Water Quality Protection Standard using procedures specified in MRP No. R5-2015-XXXX and the Standard Monitoring Specifications in Section I of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

6. The Discharger shall comply with all Standard Monitoring Specifications and Response to a Release specifications listed in Sections I and J of the SPRRs dated January 2012 which are attached hereto and made part of this Order by reference.

G. CORRECTIVE ACTION SPECIFICATIONS

1. **By 15 June 2017**, the Discharger shall submit a corrective action plan (CAP) evaluation report that determines whether monitored natural attenuation is effective in reducing VOC concentrations in both the off-site domestic wells and the point of compliance wells and should continue, or whether additional corrective action methods should be utilized. To determine whether monitored natural attenuation is effective, the CAP evaluation report shall, at a minimum, demonstrate that VOC concentrations exhibit statistically significant decreasing trends, and shall contain an evaluation of terminal electron acceptor processes.

2. **By 15 September 2017,** if the CAP evaluation report determines that natural attenuation is unsuccessful in remediating VOCs in groundwater (see Corrective Action Specification G.1), the Discharger shall submit an amended Report of Waste Discharge for Executive Officer approval to make appropriate changes to the engineered feasibility study (EFS) for a Corrective Action Plan that includes a detailed work plan for the use of other corrective action methods.

3. The Discharger shall sample the three off-site domestic wells described in Finding 41, on a quarterly basis for VOCs. The quarterly sampling results shall be reported and discussed in the semi-annual groundwater monitoring reports. Sampling frequency can be re-evaluated in the 2017 CAP evaluation report. Sample collection and analysis shall coincide with Groundwater Detection Monitoring A.1 of MRP R5-2015-XXXX.

   If at any time, either the Discharger or the Executive Officer determines that natural attenuation is unsuccessful in remediating VOCs in groundwater, the Discharger shall, within 90 days of making the determination, or of receiving written notification from the Executive Officer of such determination, submit an amended RWD for Executive Officer approval, to make appropriate changes to the EFS for a CAP that includes a detailed work plan for the use of other alternative corrective action methods to remediate VOCs.

   At a minimum, a determination that the CAP is unsuccessful in remediating VOCs may result if one of the following conditions is met:

a) Waste constituent concentrations in Point of Compliance groundwater monitoring wells exhibit an increasing trend not originally predicted after implementation of corrective action; or

b) Point of Compliance groundwater monitoring wells exhibit significant waste constituent concentration increases indicative of a new or renewed release; or

c) Significant waste constituent concentrations are identified in the monitored off-site domestic wells; or

d) Waste constituent concentrations are not decreasing at a sufficient rate to meet the remediation objectives.

The amended RWD shall include the following:

a) A discussion as to why existing corrective action measures have been ineffective or insufficient.

b) A revised evaluation monitoring plan if necessary to further assess the nature and extent of the release.

c) A discussion of corrective action needs and alternatives.

d) Proposed alternative corrective action measures, as necessary, for:

1. Source control, and/or

2. Groundwater cleanup.

e) A plan to monitor the progress of corrective action measures consistent with MRP R5-2015-XXXX.

4. Within one year of Executive Officer approval of the amended RWD to make appropriate modification to the EFS for the CAP, the Discharger shall implement the modified CAP to remediate VOCs.

H. PROVISIONS

1. The Discharger shall maintain a copy of this Order at the Portola City Hall, including the MRP No. R5-2015-XXXX and the SPRRs dated January 2012 which are part of this Order, and make it available at all times to facility operating personnel, who shall be familiar with its contents, and to regulatory agency personnel.

2. The Discharger shall comply with all applicable provisions of Title 27 and Subtitle D that are not specifically referred to in this Order.

3. The Discharger shall comply with MRP No. R5-2015-XXXX, which is incorporated into and made part of this Order by reference.

4. The Discharger shall comply with the applicable portions of the Standard Provisions and Reporting Requirements for Waste Discharge Requirements for Nonhazardous Solid Waste Discharges Regulated by Subtitle D and/or Title 27, dated January 2012, which are attached hereto and made part of this Order by reference.

5. If there is any conflicting or contradictory language between the WDRs, the MRP, or the SPRRs, then language in the WDRs shall supersede either the MRP or the SPRRs, and language in the MRP shall supersede the SPRRs.

6. All reports required by this Order shall be submitted pursuant to Water Code section 13267.

7. The Discharger shall complete the tasks contained in these waste discharge requirements in accordance with the following time schedule:

A. Corrective Action

	Task	Compliance Date
1.	Submit a CAP evaluation report that determines whether monitored natural attenuation is effective in reducing VOC concentration in both the off-site domestic wells and the point of compliance wells and should continue, or whether alternative or additional corrective action methods should be utilized. (see Corrective Action Specification G.1)	**By 15 June 2017**
2.	If the CAP evaluation report determines that natural attenuation is unsuccessful in remediating VOCs in groundwater (see Corrective Action Specification G.1), the Discharger shall submit an amended RWD for Executive Officer approval to make appropriate changes to the EFS for a CAP	**By 15 September 2017, if necessary**

	that includes a detailed work plan for the use of other corrective action methods. (see Corrective Action Specification G.2)	
3.	Implement the modified CAP or alternative CAP to remediate VOCs. (see Corrective Action Specification G. 4)	**Within one year of Executive Officer approval of the amended RWD to make appropriate changes to the EFS for a CAP**

B. Financial Assurance Review

	Task	Compliance Date
1.	Annual Review of Financial Assurance for postclosure maintenance. (see Financial Assurance Specification E.1)	**1 June of each year**
2.	Annual Review of Financial Assuance for initiating and completing corrective action. (see Financial Assurance Specification E.2)	**1 June of each year**

8. The Discharger shall comply with all General Provisions listed in Section K of the SPRRs dated January 2012 which are part of this Order.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on _____.

_____
PAMELA C. CREEDON, Executive Officer

GCS